

# LATHAM & WATKINS<sup>LLP</sup>

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June 24, 2009

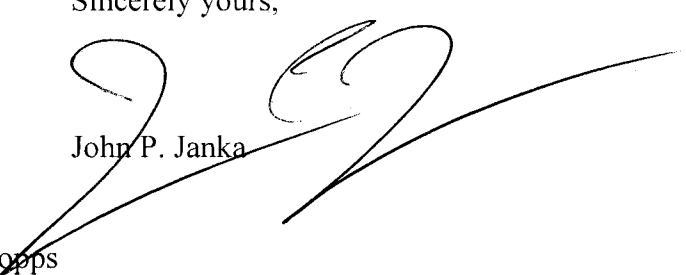
Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street, SW  
Washington, DC 20554

**Re: *Notice of Ex Parte Presentation***  
***GN Docket No. 09-51; GN Docket No. 09-40***

Dear Ms. Dortch:

On June 23, 2009, representatives of ViaSat, Inc. ("ViaSat") had meetings to discuss matters relevant to the above-referenced proceedings with: (i) acting Chairman Copps and Paul Murray, (ii) Renee Crittendon, (iii) Rod Porter, Bob Nelson, Steve Spaeth, Karl Kensinger, and Gardner Foster. ViaSat was represented by Mark Dankberg, Mike Lubin and the undersigned. The enclosed materials, and ViaSat's positions of record in these proceedings, formed the basis for the conversations.

Sincerely yours,

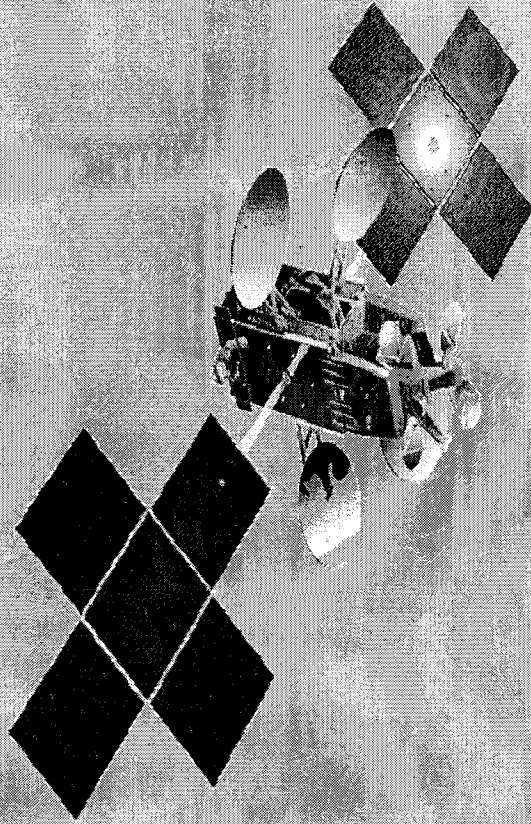
  
John P. Janka

cc w/enc:

Acting Chairman Michael J. Copps  
Paul Murray  
Renee Crittendon  
Rod Porter  
Bob Nelson  
Steve Spaeth  
Karl Kensinger  
Gardner Foster

# ViaSat®

## ViaSat – Broadband for America's Future



June 2009

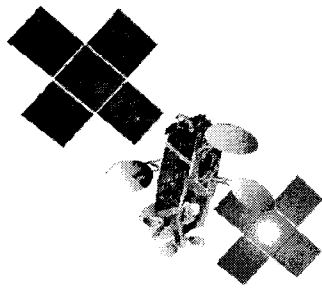
# Key Points

Viasat

- **New technology can make satellite broadband a good quality, preferable service**
  - Far better than existing satellite services
  - Better than 3G/4G Wireless
  - Better than DSL
- **Use technical & economic metrics to drive national broadband strategy**
  - Leverage competition & free enterprise
  - Avoid “king maker” decisions
- **In 2011 satellite no longer a “last resort”**

# How is this possible?

Viasat



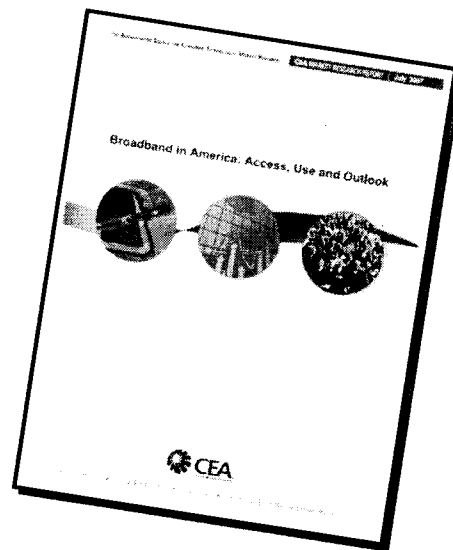
- New satellite design techniques
- 3<sup>rd</sup> Gen Broadband Satellites
- 100 Gbps+ --- more than all other US satellites combined!
- Use of fallow satellite spectrum

- Higher speed modem chips
- New microwave devices
- Much higher quantity production



- Media intensive broadband applications
- Excellent fit for satellite!
- Demand for bandwidth speed & volume
- Video / broadband convergence
- WAN optimization technology
- Enormous local storage / caching

# What Subscribers Want



**Table 5**  
**Why Current Internet Subscriber Haven't Upgraded to Broadband Yet**

You would like it, but it is not available where you live	25%
Dial-up service works just fine	19%
You just don't want another bill	13%
You don't know enough about it	12%

## What Activities Would Non-Subscribers Engage In If They Had Broadband At Home?

Examining what Internet-related activities non-subscribers would engage in if they had broadband at home offers insights into some of the possible motivations spurring households to subscribe. The clearest and cleanest comparison is observing how individuals who currently have Internet at home would change their current online behavior if they had broadband. As Table 6 highlights, given the option of broadband at home, individuals with current home Internet connectivity would decrease activities like e-mailing and surfing the web and would drastically increase the amount of digital entertainment they enjoy. It is clear, online activities like downloading music and movies and streaming audio are powerful motivations for upgrading to broadband.

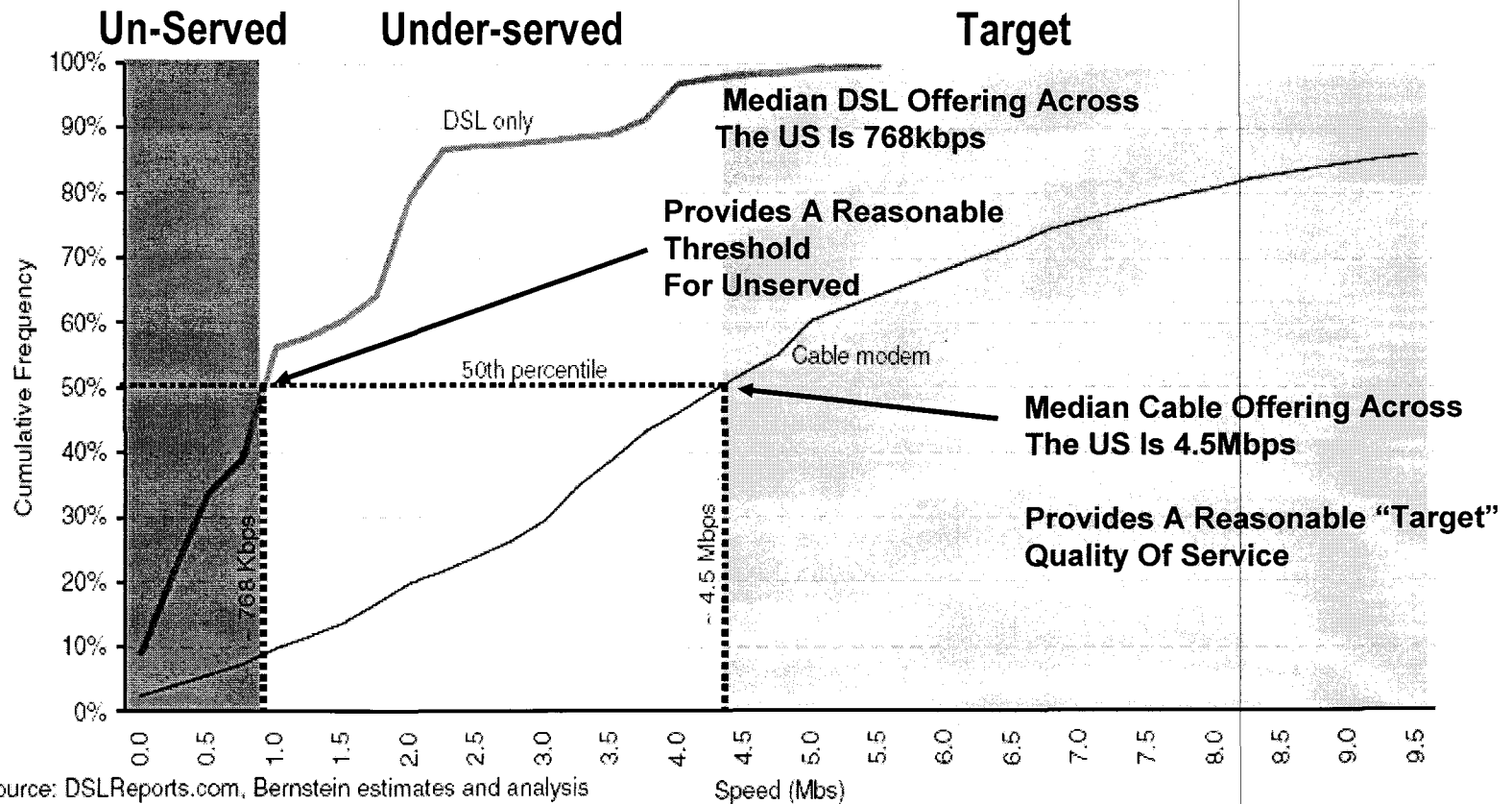
**Table 6**  
**Percent of Households Engaging in Online Activities**

Online Activity	Current Internet Use at Home	Use Given Broadband at Home	Difference
Downloading Movies	5%	21%	16%
Streaming Audio	20%	33%	14%
Downloading Music	14%	28%	13%
Uploading Movies	4%	14%	11%
Home Networking	7%	16%	9%
Homework	32%	40%	8%
Telecommuting	16%	23%	7%
Viewing Video Content	20%	27%	7%
Buying or Selling on eBay	27%	32%	6%
Online Banking	32%	38%	6%
VoIP	2%	7%	5%
Uploading Music	21%	25%	4%
Downloading Photos	33%	37%	4%
Getting News	42%	45%	3%
Instant Messaging	31%	33%	2%
Posting on Blogs	4%	6%	1%
Reading Blogs	11%	10%	-1%
Playing Games	36%	34%	-1%
Getting Directions	57%	55%	-3%
Surfing the Web	64%	60%	-5%
Shopping	51%	46%	-5%
Social networking	21%	15%	-6%
Uploading photos	40%	33%	-7%
E-mailing	79%	69%	-10%



# Broadband QOS: Speed Is Only Part of the Equation

Exhibit 5  
Median Download Speeds for DSL and Cable Broadband Service

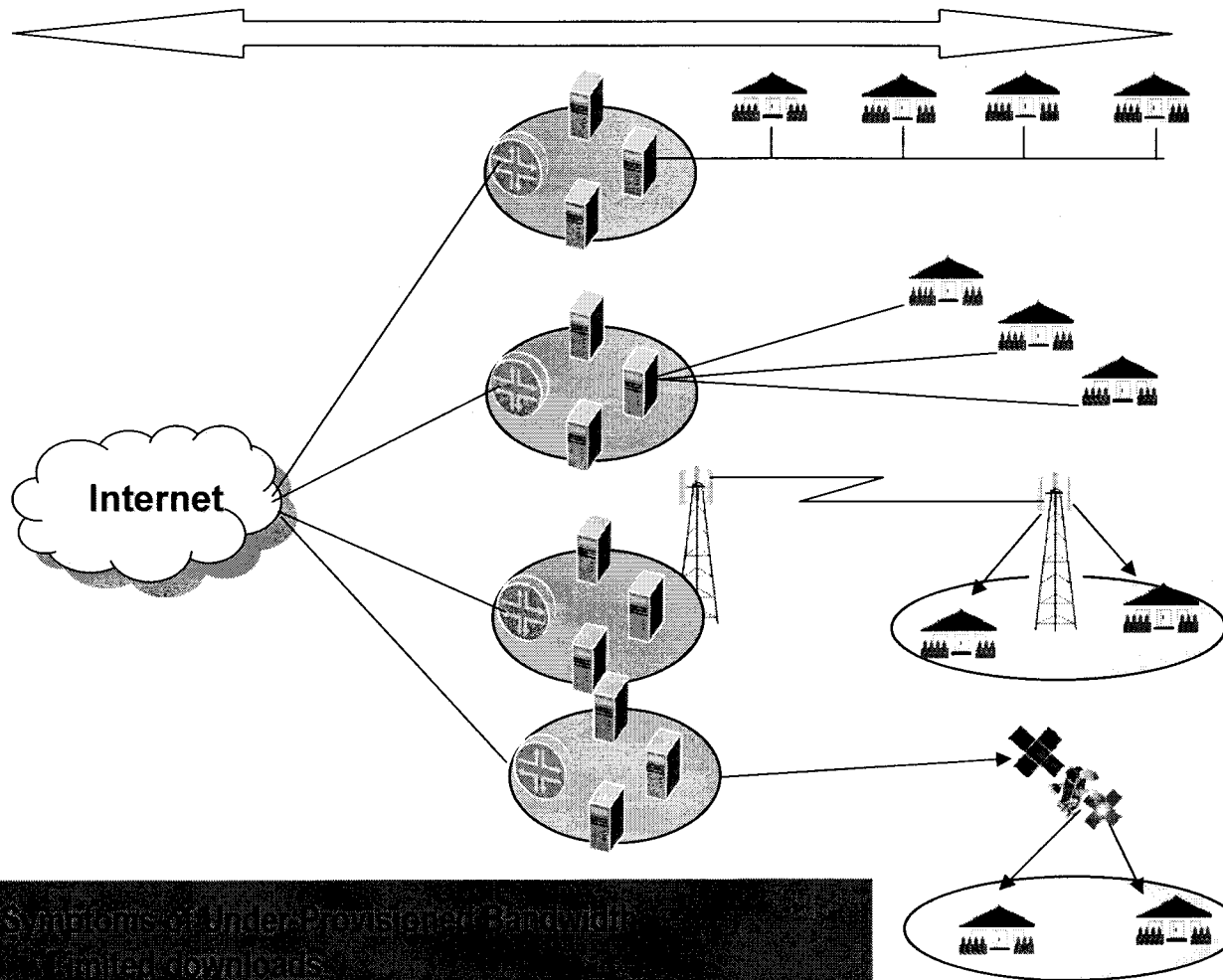


Source: DSLReports.com, Bernstein estimates and analysis

Note: x-axis extends to 10 Mbps only

# Provisioned Bandwidth As Important As Speed To QOS

## • Critical To All Network Topologies



### Potential Network Choke Points

#### Cable:

- Shared Access Network
- Backhaul

#### Telco Wireline:

- Last Mile Copper Speed
- Central Office Aggregation
- Backhaul

#### Terrestrial Wireless:

- Cell Bandwidth
- Base Station Aggregation
- Backhaul

#### Satellite:

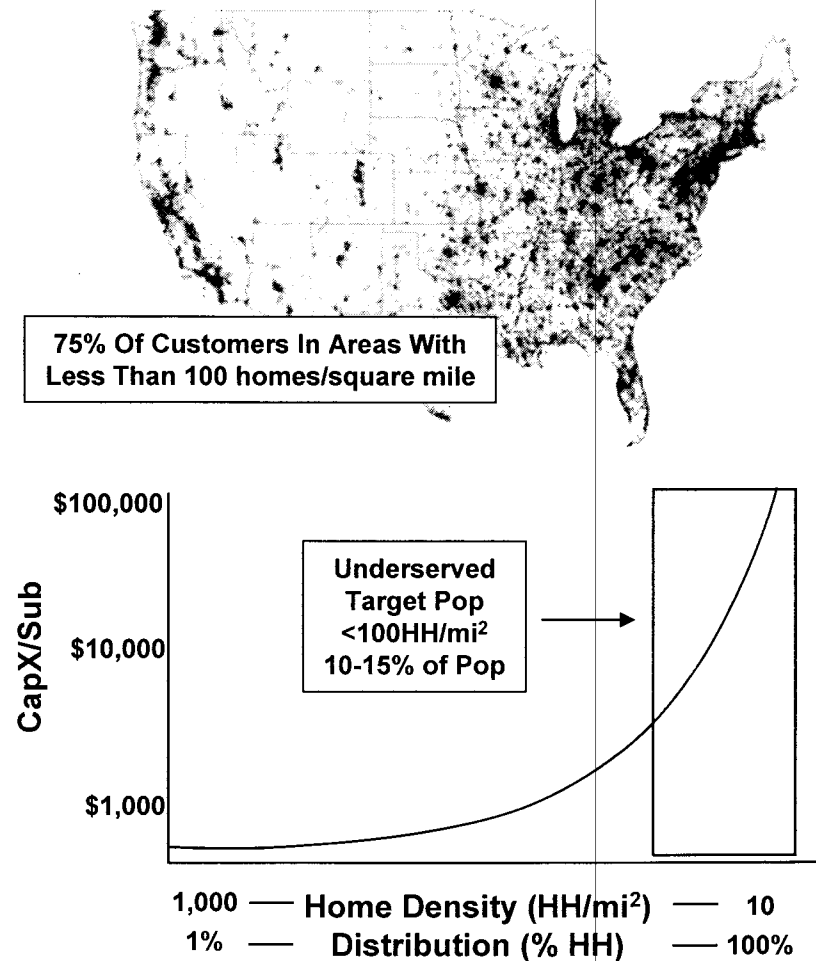
- Total Satellite Capacity
- Spot Beam Bandwidth

Symptoms of Under-Provisioned Bandwidth:  
• Limited downloads  
• Congestion, slow response, slow page loads  
• Attributes of amount of bandwidth, not of using satellite

# Un-Served Users Highly Diffused

- Empirical data
- ~1M subs today
- Unserved users follow population density
  - Pockets everywhere
- Satellite uniquely suited for fill in
- Over-builder & extension economics prohibitive

Satellite Broadband Customer  
Base In The US – YE 2008




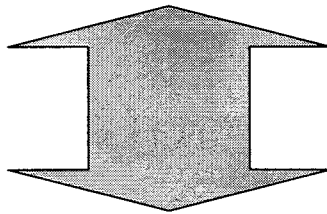
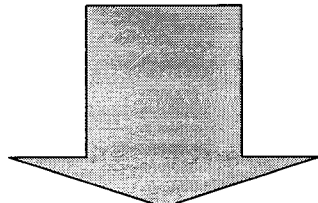


# Key Metric Example Summary

Technology	\$ / Home Passed	\$ / Home Served	Speed	Volume	Comment
FTTH	Very High	Very High	Superior	Superior	•Expensive •Backhaul?
FTTN/HFC	Very High	Very High	Excellent	Excellent	•Expensive •Backhaul?
DSL	Low	Low	Poor	Low	•Distance •Backhaul?
Wireless	Medium	Medium	Low	Low	•Density •Backhaul?
2G Satellite	Very Low	High	Low	Very Low	•Satellite capacity •Scale
3G Satellite	Very Low	Low	High	High	•Ubiquitous •Competitive •Works w/ lo Density

1. For new infrastructure build out in specific geographic areas
2. Assuming minimum speed & volume metric requirements
3. Must consider achievable adoption / penetration rates

# National Broadband Plan Should Seek to Bring Unserved To Target Service Level

	Downstream Speed	Upstream Speed	Provisioned Bandwidth Per Subscriber	Retail Monthly Price	
	<b>Recommended “Target” Service Level</b>	4Mbps	1Mbps	50kbps	\$45
					
	<b>Minimum Acceptable Broadband Today</b>	768kbps	256kbps	15kbps	\$45
					
	<b>Households Below This Level Should Be Considered “UNSERVED”</b>				

# ViaSat Satellite Status



- **Two spacecraft designed and under contract**
- **First spacecraft at 115° W focused on high-demand satellite broadband areas**
  - Covers 70% of US population
  - Launch in early 2011
- **Additional spacecraft at 77° W expands coverage**
- **Prompt grant of pending application for 115° W is critical**
  - Secondary access to NGSO-primary spectrum increases capacity and number of supportable subscribers
  - Second spacecraft at 77° W already licensed

# Mobile Broadband



- **Mobile broadband a compelling new FSS satellite business**
  - Strong uptake of maritime and aeronautical broadband service
  - Strong interest in vehicular broadband service
- **ViaSat developing innovative Ka-band mobile systems**
  - U.S. and international applications
  - Both civilian and military applications
- **Lower-cost antennas make broadband more readily available**
  - Power density/pointing accuracy tradeoff is a key element in managing adjacent satellite interference
  - Reductions in antenna input power density enable commensurate reduction in antenna pointing accuracy
  - Pointing accuracy is a key driver of antenna cost
- **Resolution of pending land mobile and aeronautical rulemakings will provide much needed certainty for the industry**